Author’s response to reviews

Title: The surgical treatment strategies for thoracolumbar spinal fractures with ankylosing spondylitis: A case report

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Author’s response to reviews:

Dear editors and reviewers:

Actually, I have uploaded a cover letter with the revised manuscript. I will rewrite the contents of the cover letter here.

Dear Editors and Reviewers:
Thank you for your valuable comments on my manuscript. I have read your opinions carefully and revised my manuscript carefully. Every revision has been marked in red in the revised manuscript. In this letter, I will answer in detail the questions raised in the comments and explain in detail the revisions in the manuscript.

1. For the comments raised by the Reviewer 1- Arjun Ballal, MBBS, MS
1.1. Abstract

1.1.1. The abstract is the face of any article and has to be properly written
Answer: Thank you for your reminder. After reading a lot of documents and studying others' abstracts carefully, I have revised this abstract carefully, hoping to get your approval.

1.1.2. Here a structured abstract is not necessary as it is a case report.
Answer: Thank you for your advice. I have learned the format of abstracts in several case reports, especially those published in our BMC surgery journal. Referring to the case report published in BMC surgery, I divided the “Abstract” into three parts: background, case presentation and results.
1.1.3. Conclusions are written in a case series and not in case reports, hence avoid conclusion here as the sample size is only three cases.
Answer: Thank you for your advice. Your suggestion made me realize that it's inappropriate to draw a conclusion here, so I changed the word "conclusion" into "results" and rewrote the part "results".

1.1.4. The authors have not mentioned as to what surgical procedure was performed to fix the fractures and have only mentioned simple posterior internal fixation. Kindly, mention as to what procedure was performed, and what were the implants used?
Answer: Thank you for your questions. I have added the causes of fracture and specific surgical procedures to the part “case presentation”. As is mentioned in the revised manuscript, all the three patients underwent posterior reduction and pedicle screws fixation. All the implants—pedicle screws and connecting rods—are made of titanium alloy.

1.1.5. Avoid mentioning keywords from the title.
Answer: Thank you for your reminder. I've re-selected and re-wrote the keywords

1.2. Introduction

1.2.1. The introduction is too short kindly, make it more descriptive.
Answer: Thank you for your suggestion. I have carefully revised the "background" section and added some content to the introduction of the patient's condition. I sincerely hope to get your approval.

1.2.2. References to be mentioned in a few places.
Answer: Thank you for your advice. In this part, I have learned more literature and listed the relevant literature in this part.

1.3. Materials and methods

1.3.1. Kindly, rewrite as 'two men and one woman'
Answer: Thank you for your reminder. I have rewritten as “two men and one woman”.

1.3.2. Kindly, mention what type of a fracture? Also how many columns were involved? Were there any neurological deficits? If yes then how was it assessed that the deficits were due to the fracture and not due to ankylosing spondylitis?
Answer: Thank you for your questions. I have added the type and segment of the fracture in the part “case presentation”. The fractures of these three people are all type IIIB according to the Dennis classification. The fracture segment of the first patient was T12-L1, the second patient was L1-L2, and the third patient was T10-T11. The first patient, a 63-year-old man, developed a decreased muscle strength in her right lower limb after the fracture, but he never had any similar symptoms before the fracture. The other two patients did not have any neurological deficits before and after the fracture. Due to the change in symptoms of the first patient before and after the fracture, we believe that the deficit is caused by the fracture, rather than AS.

1.3.3. What was the cause of the fractures?
Answer: Thank you for your questions. As is mentioned in the manuscript, the first patient got a thoracolumbar spine fracture after falling when he walked, and the other two got a thoracolumbar spine fracture without any reason.
1.3.4. More details have to be presented about the surgical method performed.
Answer: Thank you for your suggestion. Surgery information is recorded in the part “surgical method”. All the three patients underwent the same surgical procedure. They were treated with reduction and pedicle screws fixation by posterior. The pedicle screws and connecting rods were used to fix the fracture segments. The internal fixation segment of the first patient was T10-L3, of the second patient was T11-L3, of the 3rd patient was T9-T12.

1.3.5. Nothing has been mentioned about the radiological findings.
Answer: Thank you for your suggestion. The radiological findings are discussed in the presentation of the images, and the images are placed behind the discussion as required.

1.3.6. Nothing has been mentioned about the post-operative management.
Answer: Thank you for your suggestion. I have written a new section called "postoperative management" that is dedicated to reporting postoperative management content.

1.3.7. The surgical method is very poorly explained.
Answer: Thank you for your reminder. All the three patients were treated with reduction and pedicle screws fixation by posterior and detailed surgical procedures are recorded in the part “surgical method”. I sincerely hope to get your approval.

1.4. Results

1.4.1. Results are written in case series and not case reports.
Answer: Thank you for your suggestion. I have referenced the format of some case reports published in BMC surgery journal. There are many case reports with the part “result”. I mainly want to report the postoperative situation in this part. In order to make the statement more accurate, I have replaced the word “result” with “outcome”.

1.4.2. Why were the Follow ups done on telephone and why were the patients not followed up physically?
Answer: Thank you for your question. In fact, we not only conducted follow-up on the phone, but also did physical follow-up. We asked patients to come to the hospital every month for the first 3 months after discharge, and then to the hospital every 3 months. I have modified the previous statement in the manuscript to make the expression more accurate.

1.4.3. What was the scoring system used to assess the improvement in symptoms of the patient?
Answer: Thank you for your question. The VAS score is used to assess the patient's physical condition and the specific VAS score I have added to the second paragraph of the part “outcome”.

1.4.4. Images have to presented after the discussion section.
Answer: Thank you for your reminder. I have placed these images behind the part “discussion”.

1.5. Discussion and conclusion:

1.5.1. The discussion is unnecessarily long and can be made more concise and relevant
Answer: Thank you for your suggestion. I've cut out some unnecessary content and tried to make this part as concise as possible. In this part, I have discussed about the general characteristics of AS, the diagnosis, treatment and surgical methods of AS with spinal fractures.
1.5.2. Comparison to similar reports and studies need to be done.
Answer: Thank you for your suggestion. In fact, I have read a lot of relevant literature and know that similar cases have been reported, but our manuscript also has some unique characteristics and I think it is necessary to publish this manuscript. In the part “discussion”, I quoted some of the current literature and compared our conclusion with some reports.

1.5.3. The conclusions have to be mentioned only in case series and not in case reports.
Answer: Thank you for your reminder. I have replaced the subtitle "Discussion and Conclusion" with "Discussion" and deleted the previous conclusions in the part “discussion”.

1.6. References:

1.6.1. All references have to be written in Vancouver format
Answer: Thank you for your reminder. All the references have been rewritten.

1.6.2. All references older than the year '2000' need to be updated as they are over 19 years old.
Answer: Thank you for your reminder. There are no references older than the year “2000”.

1.6.3. All references older than the year '2000' need to be updated as they are over 19 years old.
Answer: Thank you for your reminder. All the references have been rewritten and there are no references older than the year “2000”.

2. Reviewer 2 (Reviewer 2): PEER REVIEWER ASSESSMENTS:

2.1. RELEVANCE - Does this case report make a contribution to medical knowledge, have educational value, or highlight the need for a change in clinical practice or diagnostic/prognostic approaches?
No, the findings of this report are well known and/or similar reports have already been published.
Answer: Thank you for your question. In fact, there are indeed many reports about AS combined with spinal fractures, but one of our three cases had postoperative urinary dysfunction due to an unsatisfactory position of a pedicle screw. We did not re-operate this person, but only after the functional rehabilitation exercise of the bladder, his urination function recovered. We think it is necessary to report it. The other two patients got a fracture with no significant injury factors, and the recovery was very good. We feel that these three patients are typical AS patients with thoracolumbar spine fractures, and it is necessary to report these cases.

2.2. GENERAL COMMENTS: authors described nicely three cases of TL spinal fractures in patients with AS. There was one case with a screw not in an ideal position, but they did not mention about a revision surgery. Finally, they should repeat less the term Ankylosing Spondylitis and use the abbreviation AS instead.
Answer: Thank you for your comments. As is mentioned above, we didn’t take the second operation, his urination function recovered after the functional rehabilitation exercise of the bladder (rehabilitation exercise is done by a dedicated rehabilitation center). Also, I have used “AS” as much as possible to replace the word “ankylosing spondylitis”.

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For Editorial Policies
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Dear editors, I have carefully read the requirements on your website and have carefully compared this manuscript with the articles that have been published on BMC surgery. The “Declarations section” is
included in the manuscript and I think this manuscript can adhere to your editorial requirements. If you think there are still some areas of this manuscript are not satisfactory, please contact me at any time. Thank you very much.

I am very grateful to the all the editors and reviewers. Thank you for your comments on this manuscript. During the past half month, I have carefully consulted each of your comments and made serious revisions to the manuscript. If you find somewhere else needs to be revised, please contact me at any time. Thank you very much.

Yang Min.

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